

ABSTRACT

An linear optical sensor charged-coupled topology using single-stage inverting charge-coupled amplifier driving an analog-to-digital converter which uses the converter full-scale reference as a precharge level. Since an offset in the range of 100-200mV is introduced in the charge amplifier, a corresponding offset is also introduced into the ADC to allow the amplifier to more quickly drive the amplifier output to a low level. The converter offset is proportional to the converter reference to ensure that it is controlled and tracks the reference.

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